APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/353,998	07/15/1999	SUSUMU SENSYU	SONY-P9817	4457

22850	7590	12/31/2003	

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EXAMINER
SHAH, NILESH R

ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *07 December 2003*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *8-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *8-18* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *08 September 1999* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 12/01/03 has been entered.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
>
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
>
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
>
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
>
> manner in which the invention was made.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al

(4,949,326) ' Optical information recording and reproducing system using optical disk having an

error corrections function and further in view of Howe (6,112,324) 'Direct assess compact disc,

writing and reading method and device for same.'

3.   As per claims 8-10 Takagi teaches the use of a recording an optical disk system to

produce an optical disk with different sectors and error correction. Takagi recording system

produces a disk with a physical and logical sector (col 9 lines 37-46). Both the physical and

logical sectors are capable of performing error correction (col 9 lines15-30). Finally Takagi

teaches that the different sectors can either be in the same block or in different blocks (8 lines 13-

39). The reason Takagi has the sectors in the same block or in different blocks is because the cost

associated with the system can be different based on how the blocks are set up (col 8, lines 30 –

39). Takagi does not specifically give the details of the content of different sectors.

Howe talks in detail about two types of sectors, physical and logical sectors. Howe

describes the use of these two sectors when reading/writing to a compact disc or optical disc.

Since ID information is not defined its broadest definition will be use. ID information is defined

as information that deals with the ID. Howe teaches that the physical (channel) sector had

information that deals with the ID (col 25 lines 5-11, col 13 lines 6-54) The boot record (ID) can

be written to this sector. Since user data is not defined its broadest definition will be use. User

data is defined as information that deals with the user. Next, Howe teaches the content of the

logical sector. Howe teaches that the logical sector may contain information that is defined by

the user (user data) and control information (col 20, lines 38-67). The user is allowed to freely

define what information is to be put into this area thus making it user data (col 20 lines 53-59).

The control information that Howe teaches is error detection coding, which is used to ensure the

highest reliability and the sector ID bytes (col 20 lines 59-67, col 21 lines 1-17). The logical

sector is coded independently thus it is inherent that the physical sector would also be coded

independently for error correction. It would be obvious to one skilled in the art to add the details

teaching of Howe to better describe the use of each sector. Howe teaches that if there is no sector

structure it is difficult to provide sufficient interleaving length and errors corrected cannot take

place (col 1 lines 33-50). With the lack of error correction accurate data reproduction becomes

very difficult (col 1 lines 33-50). Claims 8-10 are rejected.

4.   Claims 11- 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi and

Howe as applied to claim 8 above, and further in view of Sako et al (5,966,359) 'Data

recording/reproducing apparatus and method corresponding to a plurality of data formats and

data recording medium'.

5.   As per claim 11, Takagi and Howe teach the use of different sectors and different

information stored in different blocks. Takagi and Howe also teach that the different blocks of

code can use error correction. See claim 8 rejection. Takagi and Howe do not specifically teach

the use of a error correction code that is long.

        Sako teaches the use of an error correction code that is long. The "LDC' acronym is

defined as long distance code. Sako teaches the use of the error correction code including the use

of the long distance code (col 8 lines 27-31). The LDC error correction code is in the same

direction as the user data code (fig 8). It would be obvious to one skilled in the art to add the

LDC error correction to Takagi and Howe to ensure that the highest integrity of data is

maintained. Claim 8 is rejected.

6.   As per claims 12-17, Takagi and Howe teach the use of different sectors and different

information stored in different blocks. Takagi and Howe also teach that the different blocks of

code can use error correction. See claim 8 rejection. Takagi and Howe do not specifically teach

the use of a error correction code that is long.

Sako teaches the use of an error correction code that is long. The "LDC' acronym is

defined as long distance code. Sako teaches the use of the error correction code including the use

of the long distance code (col 8 lines 27-31). The LDC error correction code is in the same

direction as the user data code (fig 8). Sako also teaches the use of encoding/decoding the

information. (col. 8-10). It would be obvious to one skilled in the art to add the LDC error

correction to Takagi and Howe to ensure that the highest integrity of data is maintained. Also it

would be obvious to one skilled in the art to encrypt and decrypt the data to ensure its integrity.

7.   Claim 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi and

Howe as applied to claim 8 above, and further in view of Sako in further view of Hartness

(4,775,978).

8.   As per claim 18,Takagi and Howe teach the use of different sectors and different

information stored in different blocks. Takagi and Howe also teach that the different blocks of

code can use error correction. See claim 8 rejection. Takagi and Howe do not specifically teach

the use of a error correction code that is long.

Sako teaches the use of an error correction code that is long. The "LDC' acronym is defined as

long distance code. Sako teaches the use of the error correction code including the use of the

long distance code (col 8 lines 27-31). The LDC error correction code is in the same direction as

the user data code (fig 8). Sako also teaches the use of encoding/decoding the information. (col.

8-10). It would be obvious to one skilled in the art to add the LDC error correction to Takagi and

Howe to ensure that the highest integrity of data is maintained. Also it would be obvious to one

skilled in the art to encrypt and decrypt the data to ensure its integrity. Takagi, Howe and Saka

do not specifically the use of ECC block.

Hartness teaches the use of a ECC blocks with error corrections and detection data. (col.

5 line 32 – col. 6 line 50) ('ECC generators 13a, b, c are substantially identical devices which

generate error correction and detection data for each data sub-block which is received on their

respective input data paths 12a, b, c. The ECC code for each sub-block is generated as the sub-

block is received, and the data is passed through the ECC generator involved and encoded in a

signal placed on an associated path 14a, b, c. At the end of the data sub-block, the ECC code

value has been determined and is encoded and appended to the signal for each data path 14a, b,

c'). It would have been obvious to one skilled in the art to add the teachings of Hartness to

Takagi, Howe and Saka to ensure that each block of code goes through the high level of

detecting any errors. ECC algorithms are known to provide this high level is detection.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nilesh R Shah whose telephone number is 703-305-8105. The

examiner can normally be reached on Monday-Friday 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, AN MENG AI (MENG) can be reached on 703-305-9678. The fax phone numbers

for the organization where this application or proceeding is assigned are (703)305-0040 for

regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

NS
December 22, 2003